



USAID
FROM THE AMERICAN PEOPLE

MEXICO

GLOBAL CLIMATE CHANGE

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USAID/Mexico supports an environmental program that seeks to protect biodiversity, promote energy efficiency, reduce greenhouse gas (GHG) emissions, and decrease Mexico's vulnerability to climate change. The Mission's climate change activities have focused in particular on forest conservation, renewable energy, and clean production systems that mitigate GHG emissions.

Background. Mexico has the world's ninth largest economy and ranks second among U.S. trade partners. More than just connecting the countries economically, the 2,000-mile Mexico–U.S. frontier also links them environmentally and culturally and has contributed to a long history of mutual cooperation on environmental and natural resource issues. Examples of this cooperation include a number of environmental agreements that focus on areas such as border health; wildlife and migratory birds; biodiversity conservation and protected areas; fire prevention; renewable energy and energy efficiency; and management of forests, marine, and atmospheric resources.

In the last few decades Mexico has made tremendous strides toward conserving its natural resource base, including restructuring old government agencies and creating new ones to address specific needs. Beginning in 1989, the Mexican government formed two important entities that have helped save energy and promote renewable energy technologies – the National Energy Conservation Commission and the Commission for Saving Electrical Energy. In 1995, Mexico established the integrated Environment and Natural Resources Secretariat (SEMARNAT) to oversee the management of its natural resources and the National Commission for Study and Use of Biodiversity to produce a national inventory of biodiversity. In 2000, Mexico created the National Commission of Protected Areas, which is charged with securing the integrity of Mexico's protected area system. The Fox administration has continued Mexico's commitment to the environment. Shortly after entering office, President Fox identified environmental policy, water, and forest management as priority concerns and worked to create a forest commission within the Ministry of the Environment to focus on forest issues.

Nevertheless, Mexico's environmental concerns remain a challenge. Mexico's energy demand is growing rapidly, and renewable energies (other than hydropower) still do not play a significant role in the country's overall generating capacity. This demand is growing partly due to the huge population base in Mexico. The population of the area around the capital of Mexico City is about 20 million, the largest concentration of people in the world. Other challenges lie with Mexico's natural resources. There are 34 million hectares of biodiverse forests that sequester large amounts of carbon; however, with the world's second highest rate of deforestation, emissions for land use change contribute more than one-third of the country's greenhouse gas (GHG) emissions. Mexico is

USAID's partners in climate change activities in Mexico include*:

- California Energy Commission (CEC)
- National Energy Conservation Commission (CONAE)
- Conservation International (CI)
- Government of Japan
- Mexico Conservation Fund (FMCN)
- National Commission for Natural Protected Areas (CONANP)
- National Forestry Commission (CONAFOR)
- National Indigenous Institute (INI)
- Petroleos Mexicanos (PEMEX)
- Pronatura
- Secretariat for Public Education (SEP)
- Environment and Natural Resources Secretariat (SEMARNAT)
- Energy Secretariat (SENER)
- Shared Risk Trust Fund (FIRCO)
- State Government of Oaxaca
- U.S. Forest Service (USFS)
- World Bank/Global Environment Facility (GEF)
- The Nature Conservancy
- World Wildlife Fund
- Conservation International
- University of Rhode Island

* Because partners change as new activities arise, this list of partners is not comprehensive.

now ranked third among developing countries in GHG emissions and 13th worldwide.

USAID's program in Mexico started in 1989 and is designed to help the United States and Mexico collaboratively address shared problems and issues. A common development agenda is emerging that includes promoting environmental protection, alternative energy, and ecotourism; improving public administration, transparency, and accountability; broadening microfinance and remittance utilization; preventing infectious diseases; increasing agricultural production; and furthering competitiveness.

Sector-Specific Climate Change Activities. In terms of global climate change, the USAID Mission has focused on supporting Mexico's participation in the United Nations Framework Convention on Climate Change in the areas of forest conservation, renewable energy, and clean production activities that mitigate GHG emissions. Building on the achievements over the years, the United States and Mexico announced their intention to expand and intensify their existing bilateral efforts to address climate change. In 2003, both countries announced their intention to continue bilateral dialogue to develop joint activities to combat climate change in such areas as emission inventories, economic and climatic models, energy, adaptation, agriculture/forests, earth observation systems, and carbon sequestration technologies. The countries agreed to establish a working group to follow up bilateral cooperation on these issues and explore further specific areas of cooperation on climate change.

USAID/Mexico's Approach to Environment. The USAID environment strategy that began in 1998 focused on building Mexican capacity to conserve its valuable natural resources and to increase its energy efficiency while reducing pollution and carbon emissions. Building on the strengths that it has developed in natural resources management, clean production, and renewable energy, the Mission's new environment program, which began in 2003, seeks to improve synergies between activities and increase community-level participation through a new watershed approach. Protection of the environment and biodiversity, along with economic growth and building human capacity, are inherent elements of the strategy that directly support the Agency's broader goals. Activities under the new strategy will also promote energy efficiency, reduce GHG emissions, and decrease Mexico's vulnerability to climate change.

Natural Resource Management. USAID's natural resource objective involves building Mexican capacity to conserve its critical ecosystems and biological resources. This has been accomplished through activities that directly improve land use planning; establish and manage protected areas and their buffer zones; advance sustainable forest management activities; and build Mexican institutional capacity in conservation. Examples of these activities include:

- The Parks in Peril (PiP) program, which strengthens management of targeted protected areas and builds nongovernmental organization

(NGO) and conservation management capacity in and near reserves

- Ecoregional conservation planning
- Community and institutional participation in coastal resource management
- Small-grants programs to improve natural resource management
- Avoided deforestation project baselines (including lessons learned in modeling avoided deforestation project baselines)
- Technical assistance (defining a process to calculate deforestation rates)
- Monitoring of land use change patterns in the Chiapas (particularly through technical assistance to local organizations)
- Monitoring and evaluation of natural resources (monitoring land use change in Chiapas, hotspots monitoring to detect wildfires)
- Improved forest management activities (community-based initiatives, training and capacity building to facilitate community forestry planning, development of sustainable forestry criteria and indicators with communities)

USAID/Mexico also has supported important policy advances to enhance the viability of natural protected areas and conserve critical natural resources. Some of these policy advances include:

- Recognition of conservation areas developed by communities in the Sierra Norte of Oaxaca, southern Chiapas, and the coast of Quintana Roo
- Development of a regional strategy for the Lacondon forest in Chiapas that is being considered in the overall Chiapas state development plan
- Development of funds and long-term financing mechanisms to support protected areas and environmental projects
- Design and implementation of ecological development guidelines and zoning plans

Energy Use. In addition to land and resource management, the USAID environment program in Mexico seeks to reduce carbon dioxide emissions and pollution through the implementation of energy conservation, clean production, environmental management systems (EMS) measures, and renewable energy sources. This is achieved primarily through the following activities:

- Improvement of demand-side management and promotion of integrated resource planning
- Technical assistance to complete environmental (energy, water, materials) audits, adopt clean production systems, and develop market data on building energy efficiency equipment

- Training of energy sector employees in the evaluation of energy efficiency standards and the establishment of an energy efficiency professional training program at Petroleos Mexicanos (PEMEX), the national petroleum company
- Technical assistance to consolidate various methods used to estimate GHG emission reductions generated by energy efficiency and/or renewable energy projects
- Development of rural applications of renewable energy systems
- Development of large-scale grid-connected renewable energy sources that significantly mitigate GHG emissions
- Creation of alternative in-country energy sources, such as wind and solar power

USAID has been working with several municipalities to promote EMS measures, which include a variety of resource-saving (e.g., energy, water) initiatives. This initiative is helping design and implement EMS in the Delegación Tlalpan (a municipality within Mexico City), Chetumal (in Quintana Roo), and the entire Mexico City government. Indeed, the technical assistance provided to the Secretariat of the Environment of the Mexico City government led to a mayoral decree that will make EMS programs mandatory in all the city's 16 districts by 2004. As part of the first phase of implementation, EMS practices and methodologies have been adopted by 11 agencies within the city government, and 46 environmental assessments were carried out. In addition, more than 130 technicians have been trained through nine workshops.

Moreover, USAID activities in Mexico repeatedly result in the presentation of valuable policy advances. Some of these include:

- The commitment of PEMEX to a 1% reduction in GHG emissions through the establishment of an internal GHG trading scheme supported by USAID
- Concrete proposals for including measures in a Mexican presidential electrical sector reform that promote energy efficiency and renewable energy
- The development of a USAID-supported proposal to the World Bank/Global Environment Facility in which cost considerations for the construction of new power plants would include environmental elements

Vulnerability and Adaptation. Mexico is extremely vulnerable to the effects of climate change, principally to likely variations in rainfall patterns and sea-level change. USAID/Mexico's environment program is helping address this vulnerability in several ways – by building capacity in coastal resource management, protecting sensitive coastal areas (e.g., the Meso-American Coral Reef), and strengthening fire management at the local and national level.

Specifically, USAID has been working with communities and municipalities to promote the development and protection of land use zoning in ecologically sensitive areas along Mexico's coasts. USAID/Mexico has worked with communities, including those within the two municipalities on the Bahia Santa Maria and communities along the Costa Maya of Quintana Roo, to help them understand the importance of taking environmental factors into account when preparing development plans. Furthermore, USAID/Mexico has assisted them in developing financing mechanisms that will help protect coastal resources in the long term. USAID also supported the community of Xcalak in Quintana Roo, recognizing a protected area along its coast, and is now working with the community and federal government to develop the reserve management plan.

With its partners the U.S. Forest Service (USFS), SEMARNAT, and the Mexican Conservation Fund, USAID's environmental program has worked to improve prevention of, response to, and recovery from forest fires. A training and exchange program with the USFS has helped develop Mexican capacity to more effectively mobilize personnel and equipment when fires occur. A small-grants program through the Mexican Conservation Fund is working with local NGOs and community organizations to develop prevention campaigns, provide alternatives to burning, and support reforestation in areas that have burned. In the new program, activities such as watershed protection plans and integrated fire management will further enhance Mexico's preparedness for the impacts of climate change. As well, Mexico will work to link capacity already developed in Mexico to other parts of Central America to help lower vulnerability to fire in the region as a whole.

For more information on Mexico, visit
USAID/Mexico's Mission Web site at:

- <http://www.usembassy-mexico.gov/eaid.html>